Attachment 10 Benefit Summary

Integrated Regional Water Management Implementation Prop 84, Round 1

Santa Ana Watershed Project Authority

Santa Ana One Water One Watershed IRWM Prop 84, Round 1 Implementation Proposal

Attachment 10 Costs and Benefits Summary

Table 20a - Proposal Project Costs and Benefits Summary Proposal: Santa Ana One Water One Watershed IRWM Prop 84, Round 1 Implementation Proposal											
Agency: Summary of Project benefits											
Project	Agency	Total Present Value	,,	B/C Ratio							
		Project Costs (1)	Water Supply (2)	Flood Damage Reduction (3)	Other (4)	Total					
(a)	(b)	(c)	(d)	(e)	(f)	(g) (d) + (e) + (f)	(h) (g) / (c)				
Project (a) Groundwater Replenishment System - Flow Equalization	OCWD	\$25,157,166	\$581,833,464	\$0	\$52,074,554	\$633,908,018	25.2				
Project (b) Sludge Dewatering, Odor Control, and Primary Sludge Thickening	OCSD	\$213,736,067	\$454,608,554	\$0	\$136,563,695	\$591,172,249	2.8				
Project (c) East Garden Grove Wintersburg Channel Urban Runoff Diversion	C. Huntington Beach	\$4,042,750	\$13,748,077	\$0	\$1,363,732	\$15,111,809	3.7				
Project (d) Romoland Line A Flood System	C. Menifee	\$6,566,024	\$2,400,046	\$380,591,328	\$0	\$382,991,374	58.3				
Project (e) Santa Ana Watershed Vireo Monitoring	SAWA	\$729,396	\$14,821,317	\$0	\$0	\$14,821,317	20.3				
Project (f) Mill Creek Wetlands	C. Ontario	\$20,410,555 *	\$0	\$0	\$26,424,127	\$26,424,127	1.3				
Project (g) Cactus Basin	SBCFCD	\$9,252,757 *	\$0	\$14,244,723	\$71,145,600	\$85,390,323	9.2				
Project (h) Inland Empire Brine Line Rehabilitation and Enhancement	SAWPA	\$11,845,945	\$188,597,289	\$0	\$420,932,038	\$609,529,327	51.5				
Project (i) Arlington Desalter Interconnection Project	C. Corona	\$869,150	\$31,359,200	\$0	\$0	\$31,359,200	36.1				
Project (j) Perris II Desalination Facility	EMWD	\$2,850,042	\$5,488,006	\$0	\$21,004,452	\$26,492,458	9.3				
Project (k) Perchlorate Wellhead Treatment System Pipelines	WVWD	\$1,391,411	\$14,398,018	\$0	\$25,100,686	\$39,498,704	28.4				
Project (1) Chino Creek Wellfield Development	WMWD	\$7,658,125	\$20,837,524	\$0	\$20,120,999	\$40,958,523	5.3				
Project (m) Impaired Groundwater Recovery	IRWD	\$188,893,730	\$6,651,189	\$0	\$0	\$6,651,189	0.0				
TOTAL		\$463,739,808	\$1,334,742,684	\$394,836,051	\$774,729,883	\$2,504,308,618	5.4				

⁽¹⁾ From Exhibit C, Table 11, column (i). Or from Exhibit #, Table 17, column (i). If project is a multi-purpose project, avoid double-counting costs.

⁽²⁾ From Exhibit C, Table 15, column (d)

⁽³⁾ From Exhibit E, Table 19, row (e)

⁽⁴⁾ From Exhibit D, Table 16, column (j)

^{*} Total Present Value Project Costs estimated by SAWPA staff to be the cost of construction

SAWPA also considered the values in a highly integrated set of projects. All projects are linked to the Inland Empire Brine Line and the value of integration and interrelated nature of benefits was considered.

These three projects are integrated, in that the SARI Line project provides the necessary discharge capacity for the EMWD and WMWD projects. To avoid double counting, this summary includes only benefits identified as "primary" benefits. The EMWD and WMWD projects have water supply benefits assigned as "primary", whereas the water quality benefits from the EMWD and WMWD projects are assigned to the SAWPA project as SAWPA "primary" benefits, since the SARI Line is the disposal system for concentrated salts removed from the groundwater basin. It should be noted that the increase of 4.0 mgd capacity in the SARI line provides substantial unused capacity that will be used for future integrated projects. The benefit credited to this application for the SARI line understates the total potential water supply and water quality benefits from this project.

Table 20b - Proposal Project Costs and Benefits Summary Proposal: Santa Ana One Water One Watershed IRWM Prop 84, Round 1 Implementation Proposal Proposal:												
Agency: Summary of Integrated Project benefits												
Project	Agency	Total Present Value	Total Present Value Project Benefits				B/C Ratio					
		Project Costs (1)	Water Supply (2)	Flood Damage Reduction (3)	Other (4)	Total						
(a)	(b)	(c)	(d)	(e)	(f)	(g) (d) + (e) + (f)	(h) (g) / (c)					
Brackish Well 93	EMWD	\$2,850,042	\$5,488,006	\$0	\$0	\$5,488,006	1.9					
Chino Creek Well Field	WMWD	\$7,658,125	\$20,837,524	\$0	\$0	\$20,837,524	2.7					
SARI EMWD Usage	SAWPA	\$5,922,973	\$0	\$0	\$21,004,452	\$21,004,452	3.5					
SARI WMWD Usage	SAWPA	\$5,922,973	\$0	\$0	\$20,120,999	\$20,120,999	3.4					
TOTAL		\$22,354,112	\$26,325,530	\$0	\$41,125,451	\$67,450,981	3.0					

⁽¹⁾ From Exhibit C, Table 11, column (i). Or from Exhibit #, Table 17, column (i). If project is a multi-purpose project, avoid double-counting costs. Project costs of \$11,845,945 for SAWPA was allocated evenly between EMWD Usage and WMWD Usage

- (2) From Exhibit C, Table 15, column (d)
- (3) From Exhibit E, Table 19, row (e)
- (4) From Exhibit D, Table 16, column (j)